



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,190	06/26/2003	Pierre J. Arquin	59489-8022.US02	5423

22918 7590 07/28/2004

PERKINS COIE LLP  
P.O. BOX 2168  
MENLO PARK, CA 94026

EXAMINER
----------

GREENE, JASON M

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/607,190	ARQUIN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jason M. Greene	1724	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 39 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. <u>072404</u> .                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____.  | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Response to Amendment***

#### ***Drawings***

1. The Examiner notes that drawing Figs. 3-5 were not included in the responses filed 18 February 2004 and 16 March 2004. Accordingly, the drawings are once again objected to because the views have not been numbered in consecutive Arabic numerals. Correction is required. The Examiner agrees with Applicants that introduction of the omitted drawings would not constitute new matter.
2. The drawings are objected to because the view numbers are not preceded by the abbreviation "FIG.". See 37 CFR 1.84(u)(1). Correction is required.

#### ***Specification***

3. The Examiner suggests Applicants update the status of the parent application in the Cross Reference to Related Applications section of the specification. Specifically, Application Serial Number 09/614,649 issued as U.S. Patent 6,733,571 B1 on 11 May 2004.

***Claims***

4. With regard to claims 1 and 39, the Examiner has interpreted the phrase "200 degrees" in lines 18 and 11, respectively, to mean 200 degrees centigrade. If this interpretation is correct, the Examiner suggests Applicants amend the claims accordingly to improve the clarity and precision of the claim language.

***Response to Arguments***

5. Applicant's arguments, see page 1, lines 3-25, filed 16 March 2004, with respect to claims 1-10 have been fully considered and are persuasive. The 35 USC 103 rejections of claims 1-10 have been withdrawn.

***Allowable Subject Matter***

6. Claims 1-10 and 39 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claim 39, Snow et al. teaches a gas purification system providing sorption and particulate filtering comprising a sorption material, a particulate filtering

device, and an enclosure having an inlet and an outlet, said enclosure housing said sorption material and said particulate filter device, said sorption material proximal to said inlet, said filter device proximal to said outlet, said sorption material and said particulate filter device arranged within said enclosure such that a gas flowing into said enclosure via said inlet and out of said enclosure via said outlet must follow a flow path first contacting said sorption material and then flowing through the particulate filtering device being well known in col. 2, line 3 to col. 3, line 19.

Snow et al. teaches hydrogen sponge including hydrogen sorption material being well known in the art in col. 2, lines 54-65.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the known hydrogen sorption material of Snow et al. into the known sorption and filtering enclosure of Snow et al. to provide a system capable of removing hydrogen from inert gases, as suggested by Snow et al. in col. 2, lines 54-57. While the known sorption and filtering enclosure of Snow et al. is not explicitly disclosed as removing hydrogen, one of ordinary skill in the art would have recognized that the specific sorption material could have been replaced with any known sorption material to enable any desired component to be removed from an air stream. Snow et al. teaches that the known combined sorption and filtering devices are used to remove contaminant gases from process gases used in the semiconductor manufacturing industry. Since hydrogen is known contaminant in semiconductor manufacturing process gases (see pages 1 and 2 of the instant specification), one of ordinary skill in the art would have clearly recognized the desirability of substituting the

known hydrogen sorption material for the sorption material enclosed within the combined sorption and filtering device.

Briesacher et al. discloses thermally regenerating a hydrogen sorption material by heating an enclosure housing the hydrogen sorption material in col. 7, lines 35-47.

The prior art made of record does not teach or fairly suggest the gas purification system of claim 1 wherein the hydrogen sorption material can be regenerated by heating to at least 200 degrees centigrade. Specifically, since Snow et al. teaches the hydrogen sponge adsorbing hydrogen at 700-900 degrees centigrade, Snow et al. teaches away from the recited low regeneration temperature of at least 200 degrees centigrade.

### ***Conclusion***

8. This application is in condition for allowance except for the above noted formal matters:

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571)

272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

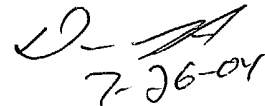
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M. Greene  
Examiner  
Art Unit 1724



jmg  
July 24, 2004

DUANE SMITH  
PRIMARY EXAMINER

  
7-26-04